Dingyu Wang – Visual Analytics Development Team

About Me

- Rising Senior in Mathematics and Scientific Computing at UT Austin
- Started at SAS in 2016 as a Summer Intern in Visual Analytics Team reporting to Don Chapman
- Returned as an intern on same team for summer 2017

Projects

- Implemented hover over tooltips across all analytics
- Created automatic titles for analytics
- Fixed language localization defects
- Fixed summary table and sorting defects
- Extended/modified/fixed menu options
- Fixed issues with numeric entry fields
- Resolved layout and undo/redo issues
- Added brushing with histogram in linear/logistic (in progress)

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Name/Description of My Project

Overview

The most significant projects I tackled this summer are implementing tooltips and automatic titles for analytics. A select field displays a drop down for the user to choose one of many options. When hovering over an option in a select field, a tooltip will appear that gives a brief and helpful explanation. Text labels have question mark icons the user can click to reveal tooltips.

Analytics have three title choices: custom title, automatic title, and no title. Auto titles are generated based on the data. For most analytics, the auto title follows the pattern "[name of analytic] of [target variable]". When there is an error or the model is incomplete, the auto title displays "[name of analytic] of Example Data". The default title mode can be changed in the settings menu, and the title mode for a particular analytic can be changed through a field in the options panel.

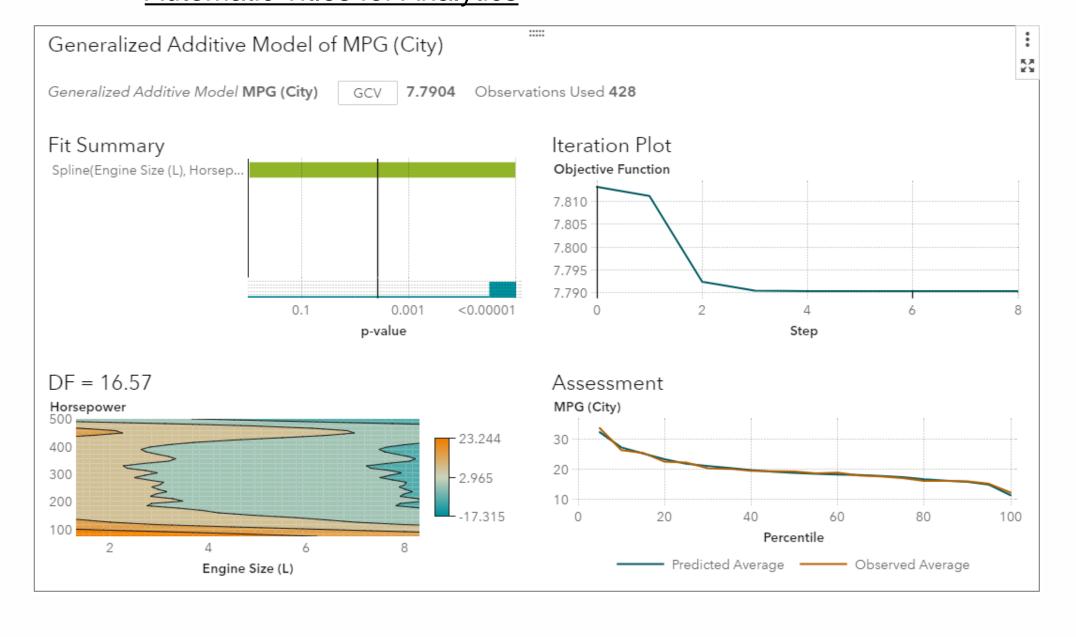
Challenges for Tooltips and Automatic Titles

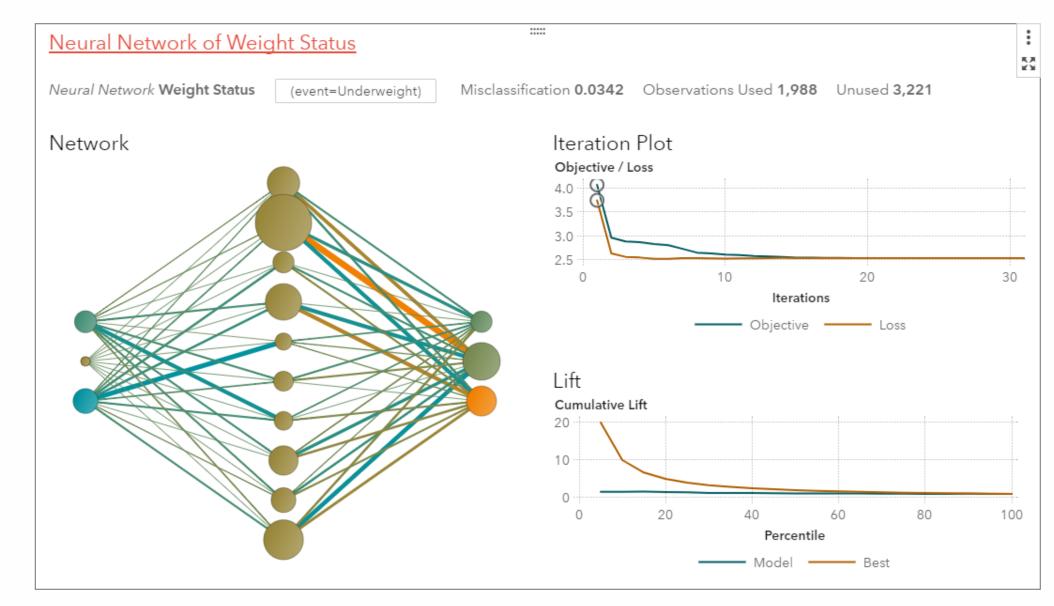
- Handling cases when there is error
- Different auto titles based on analytic type (Network ungrouped vs hierarchical)
- Working with default settings menu
- Converting auto titles to custom titles
- Making sure select fields with tooltips are functional for different languages

Impact on the Product

My work focused on bringing convenience for users. In addition to fixing numerous defects that improved the quality of the product, an user now will benefit from helpful descriptions in menus and titles that update automatically. I was able to take knowledge I gained from an user experience class at UT and my understanding of user centered design to suggest helpful changes to the product and make sure my work was functional in different contexts.

Automatic Titles for Analytics





Tooltips Variable selection method: II, None Actions None **=** Rules Backward Stepwise Filters Lasso Ada Adds and deletes effects by using a version of STATIST the objective function in which the sum of the absolute regression coefficients is constrained. SAS Visual Analytics Text Double-Click To Edit Text

